

REMARKS

The last Office Action of June 9, 2009 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 27-40 are pending in the application. No claims have been amended, added or cancelled. No amendment to the specification has been made. No fee is due.

USE OF THE TERM “HIGH VALUE” IN THE SPECIFICATION

In the last response, applicant amended the specification to clarify ambiguities caused by the literal translation of the original German language specification. In particular, the term “amplitude” in paragraphs [0015] and [0027] of the specification filed in the United States was an incorrect translation of the German term “Amplitude”. The correct translation of this term in the context of the present application is --range--. The (digital) range of the signal corresponds to a saturation function stated in paragraph [0027]. Therefore, what is limited by the limiter B and is not identical with what would be customarily referred to as “amplitude limiting” in American usage. Therefore the translation was amended.

However, although the terms “higher value” and “lower value” are also used in an idiosyncratic way in this application, the meaning given to these terms in this Office Action is clearly incorrect.

In applicant’s Figure 3, ev_{lo} is clearly a selected signal band of the control signal ev , and not a signal that is either higher or lower than ev_{hi} . Ev_{lo} in Figure 3 is shown as a band of the control signal ev that may be either both higher and lower than ev_{hi} , or neither higher nor lower than ev_{hi} -- depending on whether circuit element “B” in applicant’s Figure 3 is a band stop filter or band pass filter – not as those terms are used in the Office Action.

Please note that applicant’s signal ($ev = v_{ref} - v_{ist}$) is divided into “higher

value" (evhi) and "lower value" (evlo) portions of the control signal, as those terms are used in applicant's specification. Applicant's control signal is not divided into "higher value" (evhi) and "lower value" (evlo) portions of the control signal by higher and lower filter values, as asserted by the Office Action.

In applicant's Figure 3, evlo is clearly a selected signal band of the control signal ev. The signal evlo is a band of the signal ev. In Figure 3 evlo may be either both higher and lower than evhi, or neither higher nor lower than evhi, depending on whether circuit element "B" in applicant's Figure 3 is a band stop filter or band pass filter.

In particular, the English language specification, paragraphs [0026] and [0028] as amended, explain that circuit element B "ensures that the range of the lower value portion evlo corresponds approximately to the signal portion of the actual speed signal vist that is contributed by the interference signal rx." Thus, in applicant's claims, the "low value" portion of signal is simply a portion of the control signal that is degraded by interference.

CLAIM REJECTION - 35 U.S.C. 102(a)

The rejection of claims 27 and 33 under 35 U.S.C. 102(a), both as filed and as amended above, as anticipated by U.S. Pat. No. 6,236,925 to Gierling et al. (Gierling) is hereby respectfully traversed.

This rejection is improper. The Office Action arbitrarily assumes that two different filters that each have a higher or lower filter value, produce output signals, S16, S6, that are necessarily either applicant's "higher value" or applicant's "lower value" output signal, as those terms are used in the specification. This is not true, as pointed out above.

Furthermore, regardless of the meaning of the terms "higher value" and "lower value" in applicant's English-language application, applicant's claim 27 cannot be read on the figure in Gierling that is relied upon by the Office Action. Gierling's Figure 1, simply bifurcates a signal S5 into two identical copies of S5, for

convenience let's call them S5a and S5b. S5a and S5b are then passed through different filters, 5,6, respectively. The two different signals that emerge from those two different filters are S6 and S16. However these two different signals, S6 and S16, are immediately added together by Gierling. Thus, "each of the at least two control signals" S6 and S16 are never processed "in different ways" by Gierling, as recited in applicant's claim 27.

For the reasons set forth above, it is applicant's contention that Gierling neither teaches nor suggests the features of the present invention, as recited in claim 27.

Furthermore claim 33, which depends from claim 27 and therefore contains all the limitations thereof, patentably distinguishes over the applied prior art in the same manner as claim 27.

Withdrawal of the rejection of claims 27 and 33 under 35 U.S.C. 102(a) is thus respectfully requested.

CLAIM REJECTION - 35 U.S.C. 103(a)

Claims 28-32 and 34-38 which depend from claim 27 and therefore contain all the limitations thereof, patentably distinguish the applied prior art in the same manner as claim 27.

The rejection of claims 28-32 and 34-38 under 35 U.S.C. 103(a) as obvious over Gierling et al. in view of Smith is thus respectfully traversed given above with reference to the rejection of claims 27 and 33.

Furthermore, applicant's claims recite the use of filtering that is specific to the non-linear preprocessor recited in applicant's claims that improves the dynamic range of conventional controllers without costly, extensive changes to the controller's circuits, as explained in paragraphs [0007] -- [0010] .

Withdrawal of the rejection of claims 28-32 and 34-38 under 35 U.S.C. 103(a) is thus respectfully requested.

CITED REFERENCES

Applicant has also carefully scrutinized the further cited prior art and finds it without any relevance to the claims on file. It is thus felt that no specific discussion thereof is necessary.

CONCLUSION

In view of the above presented remarks and amendments, it is respectfully submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that calling applicant's representative at the number shown below might be helpful in advancing this case, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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